

JPRS 74103

29 August 1979

Worldwide Report

NUCLEAR DEVELOPMENT AND PROLIFERATION

No. 7

FBIS

FOREIGN BROADCAST INFORMATION SERVICE

NOTE

JPRS publications contain information primarily from foreign newspapers, periodicals and books, but also from news agency transmissions and broadcasts. Materials from foreign-language sources are translated; those from English-language sources are transcribed or reprinted, with the original phrasing and other characteristics retained.

Headlines, editorial reports, and material enclosed in brackets [] are supplied by JPRS. Processing indicators such as [Text] or [Excerpt] in the first line of each item, or following the last line of a brief, indicate how the original information was processed. Where no processing indicator is given, the information was summarized or extracted.

Unfamiliar names rendered phonetically or transliterated are enclosed in parentheses. Words or names preceded by a question mark and enclosed in parentheses were not clear in the original but have been supplied as appropriate in context. Other unattributed parenthetical notes within the body of an item originate with the source. Times within items are as given by source.

The contents of this publication in no way represent the policies, views or attitudes of the U.S. Government.

PROCUREMENT OF PUBLICATIONS

JPRS publications may be ordered from the National Technical Information Service, Springfield, Virginia 22161. In ordering, it is recommended that the JPRS number, title, date and author, if applicable, of publication be cited.

Current JPRS publications are announced in Government Reports Announcements issued semi-monthly by the National Technical Information Service, and are listed in the Monthly Catalog of U.S. Government Publications issued by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

Indexes to this report (by keyword, author, personal names, title and series) are available from Bell & Howell, Old Mansfield Road, Wooster, Ohio 44691.

Correspondence pertaining to matters other than procurement may be addressed to Joint Publications Research Service, 1000 North Glebe Road, Arlington, Virginia 22201.

REPORT DOCUMENTATION PAGE		1. REPORT NO. JPRS 74103	2.	3. Recipient's Accession No.
4. Title and Subtitle WORLDWIDE REPORT: NUCLEAR DEVELOPMENT AND PROLIFERATION, No. 7		5. Report Date 29 August 1979		
7. Author(s)		8. Performing Organization Rept. No.		
9. Performing Organization Name and Address Joint Publications Research Service 1000 North Glebe Road Arlington, Virginia 22201		10. Project/Task/Work Unit No.		
		11. Contract(C) or Grant(G) No. (C) (G)		
12. Sponsoring Organization Name and Address As above		13. Type of Report & Period Covered 14.		
15. Supplementary Notes				
16. Abstract (Limit 200 words) This serial report contains worldwide press and radio coverage of nuclear research programs; technical indicators of nuclear capabilities; production capability; construction and purchase of nuclear facilities; status of uranium and thorium supplies; level of technology in high explosives and advanced munitions; government and nongovernment attitudes on nuclear-related topics; international agreements for nuclear cooperation; transfer of technology; personalities, organizations, equipment and facilities.				
17. Document Analysis a. Descriptors WORLDWIDE Nuclear Proliferation Nuclear Development Uranium Thorium Technology				
b. Identifiers/Open-Ended Terms c. COSATI Field/Group 18				
18. Availability Statement Unlimited Availability Sold by NTIS Springfield, Virginia 22161		19. Security Class (This Report) UNCLASSIFIED	21. No. of Pages 65	
		20. Security Class (This Page) UNCLASSIFIED	22. Price	

29 August 1979

**WORLDWIDE REPORT
NUCLEAR DEVELOPMENT AND PROLIFERATION**

No. 7

CONTENTS

PAGE

WORLDWIDE AFFAIRS

Argentina to 'Freely Choose and Implement' Nuclear Plans (Various sources, 24 Jul, 1 Aug 79)	1
Needs Growing, Editorial Canadian Expert Visits	
KWU Official Confirms Withdrawal From Iranian Nuclear Plants (Various sources, 31 Jul, 1 Aug 79)	3
Plants 70 Percent Complete Hopes for Completion Minister's Comment	
Australia, UK Sign Nuclear Cooperation Accord (AFP, 24 Jul 79)	5
Soviet Energy Experts Continue Visit to FRG (DPA, 27 Jul 79)	6
Briefs	
Korean Nuclear Plant Construction Sought by French Ban-the-Bomb Convention in Tokyo	7
	7

ASIA

INTER-ASIAN AFFAIRS

Briefs	
Australian Uranium Safeguard Accord With Japan	8

CONTENTS (Continued)	Page
INDONESIA	
Plans for Nuclear Power Plants Continue Despite Harrisburg Accident (KOMPAS, 1 Jun 79)	9
French Aiding in Uranium Exploration in Kalimantan (HARIAN UMUM AB, 13 Jun 79)	11
JAPAN	
Government Unveils Nuclear Energy Development Program (KYODO, 1 Aug 79)	12
Briefs	
Australian Uranium	13
PAKISTAN	
Nuclear Energy Plan To Continue (THE PAKISTAN TIMES, 28 Jul 79)	14
SOUTH KOREA	
Briefs	
Nuclear Plants Plan for Year 2000	15
TAIWAN	
Briefs	
Scholars' Ability To Develop Nuclear Weapons	16
EAST EUROPE	
INTERNATIONAL AFFAIRS	
CSSR-USSR Construction of Khmelnitsky Power Station Noted (NOVA SVOBODA, 6 Jul 79)	17
CZECHOSLOVAKIA	
Briefs	
New Uranium Enrichment Method	18
GERMAN DEMOCRATIC REPUBLIC	
Briefs	
New Research Reactor	19

CONTENTS (Continued)	Page
ROMANIA	
'AGERPRES' Reports on Nuclear Energy Research Progress (AGERPRES, 1 Aug 79)	20
LATIN AMERICA	
INTER-AMERICAN AFFAIRS	
Nuclear 'Memorandum of Understanding' Signed With Venezuela (O GLOBO, 28 Jul 79)	22
Chile Comments on Nuclear Agreement With Uruguay (Radio El Espectador, 20 Jul 79)	23
Briefs	
Brazil-Venezuela Nuclec Oil Agreements	24
ARGENTINA	
Atucha II Could Be Completed in March 1982 (CLARIN, 22 Jul 79)	25
Briefs	
Atucha Plant in Operation	26
BRAZIL	
Country's First Nuclear Plant Will Begin Testing Next Year (AFP, 26 Jul 79)	27
Cost of Angra 2 Nuclear Plant Rising (JORNAL DO BRASIL, 25 Jul 79)	28
Briefs	
Loan for Nuclear Plants	29
CUBA	
Briefs	
Garcia Capote Scores PRC Policy	30
ECUADOR	
Spain To Help Build Nuclear Energy Center (EL UNIVERSO, 24 Jul 79)	31

CONTENTS (Continued)	Page
Briefs	
Uranium Exploration	33
NEAR EAST AND NORTH AFRICA	
LIBYA	
Al-Qadhdhafi Reportedly Financing Pakistan's Nuclear Bomb (AL-HAWADITH, 13 Jul 79)	34
WEST EUROPE	
FEDERAL REPUBLIC OF GERMANY	
SPD Internal Debate on Nuclear Power Described (Peter Jansen; HANDELSBLATT, 23 Jul 79)	36
Hauff Interviewed on Nuclear Powerplant Risk Study (Volker Hauff Interview; ZDF, 14 Aug 79)	38
Newspaper Discusses Nuclear Safety Report (Hol; FRANKFURTER RUNDSCHAU, 15 Aug 79)	40
Nuclear Safety, Technology Transfer Discussed (FRANKFURTER ALLGEMEINE, 15 Aug 79)	41
FRANCE	
European View on Nuclear Cooperation Voiced (Georges Vendryes; CEA NOTES D'INFORMATION, May 79) .	42
NETHERLANDS	
CPN Announces New 'Stop the Neutron Bomb' Campaign (Various sources, 22, 23 Jun, 4 Jul 79)	54
International Activities Planned	
Soviet Involvement Criticized, by J. L. Heldring	
Soviets Refute Accusation, by Vladimir Moletsyanov	
Heldring Cites Source, J. L. Heldring	

WORLDWIDE AFFAIRS

ARGENTINA TO 'FREELY CHOOSE AND IMPLEMENT' NUCLEAR PLANS

Needs Growing

Buenos Aires LA NACION in Spanish 24 Jul 79 p 8 PY

[Editorial: "Canada Shows Understanding"]

[Text] Our country's plans for expansion of nuclear energy supply are underway. In view of the well-known national, regional and worldwide energy situation, the implementation of these plans is obviously urgent. Deadlines are getting close and needs are growing.

Serious, sufficiently proven options exist for the construction of new power plants and making a decision is not easy. There is a need for an exhaustive analysis which should not restrict itself to technical aspects. Important economic, political and strategic interests, as well as financial terms and prospects of obvious future effects, are at stake.

Canada, one of the countries involved in the construction of the Embalse Rio Tercero plant, is interested in building Atucha II and in continuing to participate in the tasks carried out by the National Atomic Energy Commission [CNEA]. Since 1976 the CNEA has performed in a praiseworthy manner. Among the positive aspects we must point out the reaction to some pretensions of Canadian organizations, which unfortunately did not help to advance Argentina's plans. A number of proposals which contradicted the policy of our country aroused some doubts concerning the risks involved in getting tied to a single option. Fortunately, thanks to its trustworthy nature, the confidence it inspires and the high technical and scientific level of its experts, the leadership of nuclear affairs has been offered other alternatives worth considering. Thus, improper requirements were mitigated and Argentina is now able to freely choose and implement its plans without having to sign the nonproliferation treaty or accepting safeguards which are beyond the fair and proper ones we have accepted. In other words, Argentina can pursue the peaceful utilization of nuclear energy without detriment to its status of an independent country, which is what benefits it most.

This must be made very clear because there is great merit in not bowing to monopolies in the use of nuclear fission as the source of energy, taking into account that the nation's doctrine and policy toward the issue leave no room for suspecting the intentions of the nation.

Canada, which made requirements that Argentina could not and did not accept, has finally understood that there are no grounds for the suspicion and the superfluous

conditions which it had voiced during the appropriate negotiations. May this change, due to either a better analysis of the situation or a more in-depth view which the new government has taken of the situation, be welcome. In addition to sending a Canadian delegation to Argentina, there have been public statements which place bilateral negotiations at their appropriate level. It is worth pointing out this state of affairs and the satisfaction of being able to decide, at undue pressure, on the most effective option to provide the country with a fully guaranteed and technically good supply of nuclear energy is necessary to guarantee Argentina's economic and social development in the coming decades.

The remarks of CNEA's chairman, published the day before yesterday, epitomize the issue on hand and clearly explain the reasons for delays experienced by the plans of the Embalse powerplant, while instilling confidence in the coming stages of Argentina's nuclear plan.

Canadian Expert Visits

Buenos Aires NOTICIAS ARGENTINAS in Spanish 1205 GMT 1 Aug 79 PY

[Text] Buenos Aires, 1 Aug (NA)--Walter Higgins, president of the Canadian Nuclear Equipment Suppliers consortium, has indicated that his week-long visit was aimed at "providing the Argentine industry with the means to take care of the country's nuclear needs almost entirely by itself."

Higgins, who concluded his 1 week of contacts in the country yesterday, said that "the visit was very positive because I made contacts with several companies (involved in atomic industry) and we will make a great contribution to Argentina's industry in the future." He added: "We believe that Canada will be able to supply some additional equipment and that in the coming years Argentina will practically attain self-sufficiency in nuclear devices." He later admitted that there are "slight differences between Canadian and Argentine manufacturing methods," but added that "our objective was for Argentina to utilize as soon as possible the same technology we use in Canada."

He indicated that "if the government accepts the consortium's proposals, the participation of Argentine firms will be twice what it had been in the Embalse nuclear plant. "I believe that Argentina would achieve self-sufficiency in the manufacture of nuclear equipment before the four plants envisaged in your program are finished," he added.

With regard to the international safeguards required for the installation of nuclear plants, to the effect that said plants will not be used for the development of nuclear weapons, Higgins said that in his opinion "Canada will not accept them as an obligatory condition for the transfer of technology to Argentina." Higgins believes that between his first visit last December and now there has been progress "regarding complementation with Argentine nuclear industry." He concluded by saying that "speaking in terms of level of nuclear technology, I could say that on a one-to-ten scale Canada would have nine points and Argentina would have three."

CSO: 5100

WORLDWIDE AFFAIRS

KWU OFFICIAL CONFIRMS WITHDRAWAL FROM IRANIAN NUCLEAR PLANTS

Plants 70 Percent Complete

Hamburg DPA in German 0604 GMT 31 Jul 79 LD

[Excerpts] Tehran--Norbert Schmitt, head of the Kraftwerk Union (KWU) office in Tehran, stated on Tuesday in reply to an inquiry that KWU has withdrawn from the contract to build two nuclear power plants near Bushehr on the Persian Gulf. The letter to the Iranian Atomic Energy Organization said that his company no longer felt bound by the contract. He said that "theoretically" the KWU could continue with construction of the nuclear power plants which were begun in 1975 and are some 85 and 70 percent completed, respectively.

One hundred five Germans who for months have been looking after the site in case construction continued will be flown home on Wednesday morning. Some 20 Germans will remain on the site in a liaison office.

Hopes for Completion

Hamburg DPA in German 1233 GMT 1 Aug 79 LD

[Text] Tehran--Following the cancellation of the Deutsche Kraftwerk-Union's (KWU) contract to build two atomic reactors in Bushehr on the Persian Gulf, Iran wants to preserve the half-finished projects until the country can complete them on its own. This was stated in a DPA interview today by the head of Iran's atomic energy organization, Fereydun Sahabi. The contract which was canceled will not be renewed.

Sahabi expressed the desire to conclude an agreement with the KWU on employing German experts for the maintenance work. In his view, 10 Germans would be enough to conserve the construction site, in addition to Iranians. At the same time he stressed Iran's readiness to come to an agreement with the KWU on outstanding payments and other matters "in an amicable manner." He particularly wants the Germans to know this. "We need German technology and the Germans need our money," said Sahabi. Therefore there is no reason why agreement cannot be reached amicably.

Minister's Comment

Tehran Domestic Service in Persian 0930 GMT 1 Aug 79 LD

[Text] In the wake of an announcement by a spokesman of the West German firm Kraftwerk Union concerning cancellation of the contract with Iran relating to nuclear power plants, 'Abbas Taj, minister of energy, said the following in an interview with the PARS NEWS AGENCY: Because this contract was not in Iran's interests; because implementation of the contract would have made us dependent on outside sources from the standpoint of technology, raw materials and foreign engineers; and since the contract embodied colonialist features and had not been formulated in Iran's interests, it was therefore rejected by the Iranian Government.

The energy minister added: The Iranian Government has repeatedly, in writing, told this firm it is prepared to enter into negotiations with the firm in one form or another. The firm, however, has failed to give us a convincing answer. On the other hand, because the 13th installment payable to the firm has not been paid due to strike actions, the said German firm, unilaterally and without the knowledge of the Iranian Government, has declared the contact canceled and terminated effective today. Meanwhile, the firm has issued a statement in this regard saying that, if the Iranian Government required, 20 members of its staff would be prepared to serve as consultants in Iran in maintaining these power plants. Confirming this matter, Eng Taj said: If these people are prepared to cooperate with us as consultants in Iran, we will be ready to hold talks with the firm to ascertain how to pay them and determine which party should pay their salaries.

CSO: 5100

AUSTRALIA, UK SIGN NUCLEAR COOPERATION ACCORD

Hong Kong AFP in English 1709 GMT 24 Jul 79 OW

[Text] London, July 24 (AFP)--Australia today signed an agreement with Britain on nuclear cooperation and transfer of nuclear material for peaceful uses. Australian Foreign Minister Andrew Peacock, who signed the document, said it covered all safeguard requirements stipulated by the Australian Government on May 24, 1977.

Hearing that Australia was strongly interested in concluding a safeguards agreement with the nine-nation Euratom community as soon as possible, Mr Peacock said that once this had been achieved, the way would be open for sale of Australian uranium to meet the peaceful energy needs of Euratom members. The foreign minister said that the agreement with Britain stipulated that material and equipment transferred between the two countries would not be diverted to military or explosive purposes. Another provision stipulated that uranium supplied to Britain by Australia would not be retransferred to any country outside Euratom. Mr Peacock said the assumption was that a safeguards agreement with Euratom would be in force by the time Britain receives its first shipment of Australian uranium.

He said that any retransfer would require Australia's prior consent. The foreign minister also said the agreement contained a clause reserving Australia's position on high enrichment and reprocessing pending the outcome of current international studies, including the international nuclear fuels cycle evaluation (INFCIRC). The Anglo-Australian agreement would be reconsidered by the end of 1982 if Australian agreement would be reconsidered by the end of 1982 if Australia had not concluded a safeguards agreement with (EURATOM) by then. Mr Peacock noted that the accord with Britain was the first concluded by Australia with a member country of Euratom. A safeguards agreement was recently signed with the United States.

CSO: 5100

SOVIET ENERGY EXPERTS CONTINUE VISIT TO FRG

Hamburg DPA in German 1657 GMT 27 Jul 79 LD

[Text] Berlin--The USSR's energy program envisages the construction of nuclear power plants with a capacity of 1,500 to 2,000 megawatts in the European part of the country in the mid-1980's and of 40 coal-burning power station blocks with a capacity of 500 megawatts each in the eastern part of the country. The coal deposits in the European part of the Soviet Union have been largely exhausted, so that the energy requirements of this region will have to be covered to a large extent by nuclear energy.

This was stated by the Soviet deputy minister of power machine building, Yu. Kotov, during a visit by Soviet energy experts to the Wilhelmshaven coal-burning power station of the Nordwestdeutsche Kraftwerke AG (NWK) today. The Russian delegation is spending a week touring the Federal Republic of Germany visiting power stations.

Weilhelmshaven's 720 megawatt coal-burning power station is regarded as the largest and most modern conventional power station in Europe and the least damaging to the environment. The coal-burning power station blocks planned in the USSR are to be built largely on the model of the Wilhelmshaven plant.

CSO: 5100

BRIEFS

KOREAN NUCLEAR PLANT CONSTRUCTION SOUGHT BY FRENCH--Seoul, July 30 (HAPTONG)--Framatome of France has reportedly expressed its intention to positively supply Korea with technical know-how if it were awarded a contract for the construction of nuclear power plants in Korea. According to a group of Korean reporters who recently visited the French firm, a high-ranking official of Framatome has told them that it is ready to provide Korea with technical guidance and training if it wins the contract. The French official disclosed that Framatome has proposed to Korea to train Korean experts in the fields of nuclear reactors, the manufacture of nuclear power generating facilities and technologies related to nuclear fuels after it took part in international biddings held for Korea's fifth and sixth nuclear power plants, the reporters said. If the French technical training is extended to Korea, it will greatly contribute to the development of Korea's nuclear power generation facilities, they added. [Text] [Seoul HAPTONG in English 0830 GMT 30 Jul 79 SK]

BAN-THE-BOMB CONVENTION IN TOKYO--Tokyo, Aug 1 KYODO--Some 450 persons Wednesday discussed ways to abolish nuclear arms and relief measures for A-bomb survivors in Hiroshima and Nagasaki in the second day session of the three-day world ban-the-bomb conference being held at the Japan Youth Hall in Tokyo. The participants, including 60 delegates from 20 countries and 12 international organizations, went into discussion in three subcommittee meetings and a debate session, which took up nuclear proliferation and atomic energy. The issue of nuclear power plants is on the agenda for the first time at the conference jointly sponsored by three major national organizations seeking a total ban on the atomic and hydrogen bombs. Among the participants were U.S. biochemist George Wald, a noted A-bomb critic and recipient of the Nobel Biology Prize and Mrs Jean Ralph, widow of a U.S. serviceman who died of cancer last year. He was exposed to the residual radiation in Nagasaki in 1945 soon after the end of World War II. Meanwhile, Nagasaki city authorities said a total of 1,263 "hibakusha"--persons hit by the radiation--in this western Japanese city passed away or were known to have died in the past year ending July 31. They included a Dutch army captain and six other prisoners of war interned in the city at the time of the bombing, an official said. [Text] [Tokyo KYODO in English 0616 GMT 1 Aug 79 OW]

CSO: 5100

BRIEFS

AUSTRALIAN URANIUM SAFEGUARD ACCORD WITH JAPAN--Japanese and Australian officials have begun a third round of negotiations in Tokyo aimed at settling a uranium safeguards agreement. The talks are scheduled to last until Wednesday and follow inconclusive discussions in Tokyo last year. The six-member delegation from Australia is lead by the first assistant secretary of the Foreign Affairs Department, Mr (John Kelso). The negotiations are aimed at revising the 1972 atomic energy agreement between Japan and Australia to take account of Canberra's safeguards policy on uranium exports. Radio Australia's Tokyo correspondent Walter Hamilton says major sales contracts being negotiated for supply of Australian uranium to Japan after 1985 will be subject to a safeguards agreement. The correspondent says little progress has been made in the talks so far with the Japanese resisting Australian demands that they fully account for the uranium they buy. [Melbourne Overseas Service in English 1130 GMT 30 Jul 79 OW]

CSO: 5100

PLANS FOR NUCLEAR POWER PLANTS CONTINUE DESPITE HARRISBURG ACCIDENT

Jakarta KOMPAS in Indonesian 1 Jun 79 p 12

[Excerpt] According to Professor Baiquni, nuclear energy is the one and only answer to our economic development in the coming decade. Despite the Harrisburg accident involving a recent leak of a nuclear reactor, we do not have to hold back our energy program, which is needed to meet our energy need.

In an interview with reporters last Wednesday, the director general of BATAN reiterated that it is customary for each of us to take risks in adopting a new technology. "Does it mean that we must ban the use of aircraft because of the DC-10 accident?" he asked. He pointed out that a baby who is learning to walk runs the risk of falling. If the baby does not wish to fall, he or she would not learn to walk. So also if we are afraid of nuclear energy, we need not bother initiating a development program, he said.

Based on a feasibility study which will be completed by the end of the year, two places suitable for nuclear plants, Rembang and Lasem, have been selected, according to Bainquni. The selection was made after considering geological conditions, their effects on pollution and population, hydrography, possibility of volcanic eruptions, and the like.

Concerning Indonesia's dependence on foreign aid after the development of nuclear plants, Baiquni said it has been prevented. In the long-term contract to purchase the nuclear power plants, provisions concerning the acquisition of basic material and spare parts have been stipulated. In addition, we are presently conducting uranium explorations, whereas the uranium concentrate itself, which generates nuclear energy, is available in the world market in a large quantity, and is not monopolized by any one country.

He admitted that the US\$1 billion invested in a nuclear reactor is a large sum. "However, after we have figured out the amount of electricity generated by the nuclear plant, its cost remains competitive against any kind of power plant," he said. "Even the entire island of Java, which now needs a total of 90 megawatts of electricity, can be serviced by one and a half nuclear power plant," he stated.

Concerning the timing, he believes that the right time for a nuclear power plant is when the entire island of Java has been "interconnected", and this will take place around 1990. Between 100 and 120 scientists and technicians are needed to run a nuclear power plant with a 600 megawatt capacity. "We do not have that many experts now, but BATAN has initiated the training program in cooperation with several universities," he said.

9316
CSO : 5100

FRENCH AIDING IN URANIUM EXPLORATION IN KALIMANTAN

Jakarta HARIAN UMUM AB in Indonesian 13 Jun 79 pp 1, 8

[Excerpt] Uranium exploration in Central Kalimantan, which has been jointly conducted by the governments of Indonesia and France since 1969, is presently safe. The statement was made by Dr Prayoto, secretary of BATAN (National Atomic Energy Agency), in response to questions from AB concerning the possibility of Indonesian uranium being smuggled out of the country.

Prayoto issued the statement at his office yesterday. He said that to take the uranium out of the remote area of Central Kalimantan would require a road and a harbor. However, they are presently unavailable and are already part of the joint project with the French government involving uranium exploration which will begin at the end of 1979. That place can only be reached by helicopter, and it sometimes requires a day or two walking on foot, the secretary of BATAN added.

All expenses incurred in the exploration have been borne by France, while Indonesia provides the additional scientists and prospectors. At the end of 1976 a similar program was also conducted with the West German government involving West Sumatra in which the expenses were borne by both governments.

The results of the explorations, those conducted by BATAN's own DSG team as well as those of the joint projects, appear promising. In reply to AB's question, Prayoto declined to quote specific figures of the exploration results and how long the exploration will last. He said, smiling, "We are awaiting the report from the French."

In line with technological advancement, nuclear energy will play an important role as a source of electricity. It is estimated that in the year 2000 Indonesia's need for electricity will reach 64,000 megawatts, and between 21 and 39 percent of that amount will be provided by nuclear energy. Prayoto added that the likelihood of Indonesia importing uranium should not be ruled out in the event that the quality of domestic uranium is too low. If such is the case, we must improve its quality at a very high cost.

9316

CSO: 5100

JAPAN

GOVERNMENT UNVEILS NUCLEAR ENERGY DEVELOPMENT PROGRAM

Tokyo KYODO in English 0339 GMT 1 Aug 79 OW

[Text] Tokyo, Aug 1 KYODO--The government unveiled Wednesday a new nuclear energy development program setting lower targets of nuclear power generation for fiscal 1985 and 1990 to cope with slow progress in the present scheme due to growing popular concern over the safety of atomic energy.

But an ambitious goal has been set newly for fiscal 1995 to meet commitments made by seven leading industrial democracies at the Tokyo economic summit in June to hold down oil imports and step up development of alternative energy sources. The new program, worked out by the Natural Resources and Energy Agency, targeted nuclear power output at 28 million kilowatts for fiscal 1985, ending March 31, 1986, down 15.2 per cent from the current goal, and at 54 million kws for fiscal 1990, down 10 per cent. Fiscal 1990 was the last target year under the old program but the new one set a goal of 80 million kws for fiscal 1995.

Japan currently has 20 nuclear power reactors capable of producing 13.85 million kws. Construction of new nuclear power plants has been slow due to objection from local residents worrying about their safety, particularly after the radioactive leak accident at the U.S. Three Mile Island plant last March. The new targets of nuclear power development will be incorporated into a long-term projection on energy supply and demand being revised by a panel of advisers following the Tokyo summit agreement to reduce oil imports. The revised energy projection is expected to be announced late in November.

CSO: 5100

JAPAN

BRIEFS

AUSTRALIAN URANIUM--Tokyo, July 27 KYODO--Japan and Australia will hold the third round of their negotiations on revision of the bilateral agreement on Japanese use of Australian Uranium here Monday through Wednesday, the Foreign Ministry announced Friday. In the preceding two rounds of negotiations, held in Tokyo and Canberra last year, the two nations failed to reach agreement on an Australian proposal calling for Japan to obtain prior permission for recycling used uranium to enriched uranium. The Ministry said Japan would be represented at the talks by Taizo Nakamura, deputy director-general of the United Nations Bureau of the Japanese Foreign Ministry, and Australia by John Kelso, first assistant secretary of the Foreign Affairs Ministry. [Text] [Tokyo KYODO in English 0758 GMT 27 Jul 79 OW]

CSO: 5100

NUCLEAR ENERGY PLAN TO CONTINUE

Lahore THE PAKISTAN TIMES in English 28 Jul 79 p 1

[Text] Rawalpindi, 27 Jul--President General Mohammad Zia-ul-Haq said here today: "We shall eat crumbs but will not allow national interest to be compromised in any manner."

The President made these remarks, in his address to the nation, while referring to the foreign pressure on Pakistan to accept certain discriminatory restrictions on its peaceful atomic energy program, which militate against the sovereignty and authority of an independent and sovereign nation.

President Zia said Pakistan has given assurances that "our objectives are peaceful and that in view of the paucity of energy resources Pakistan has no option but to acquire nuclear technology."

"Despite this our economic aid has been affected, but we have absorbed its impact and the entire nation supported the government stand because it was united on this issue," he said.

He said: "I assure you that we shall remain steadfast in our noble resolve and will not compromise on national interest. We shall bear our vicissitudes ourselves. We shall lift our own burden. We shall eat crumbs but will not allow our national interest to be compromised in any manner whatsoever. I will, Insha Allah! dilate on this subject in my next address."
--PPI.

CSO: 5100

SOUTH KOREA

BRIEFS

NUCLEAR PLANTS PLAN FOR YEAR 2000--Seoul, July 30 (HAPTONG)--The government has worked out a long-term program to construct three kinds of nuclear power plants--light water reactors, heavy water reactors and fast-growing reactors--by 2000, it was learned here today. According to the authorities concerned, the program was made to lessen to the largest extent the country's dependency on foreign nuclear fuels and a secure stable supply of atomic energy sources. South Korea plans to build about forty nuclear power plants by the end of this century. The authorities said if the nation sticks only to the construction of light water reactor plants, it would face difficulties in securing the nuclear fuels. Until the latter 1990's when Korea is expected to build its first fast-growing reactors, the country will simply build light water and heavy water reactor stations at the construction rate of 2:1 until 1995, it said. At present Korea has only one heavy water reactor power plant now under construction at Wolsong, North Kyongsang Province, with the financial help of Canadian loans. [Text] [Seoul HAPTONG in English 0832 GMT 30 Jul 79 SK]

CSO: S100

TAIWAN

BRIEFS

SCHOLARS' ABILITY TO DEVELOP NUCLEAR WEAPONS--Our government policy of not developing nuclear weapons has not changed. After hearing a briefing by the Chungshan Academy of Sciences, scholars at home and from abroad attending a conference sponsored by the science and technology section of the National Construction Council showed deep concern over our country's nuclear policy. A responsible person of the Chungshan Academy of Sciences explicitly said: Quite a few years ago, the Chungshan Academy of Sciences was inclined to develop nuclear weapons. However, in 1969 the government laid down the policy of developing atomic energy only for peaceful use, not for nuclear weapons; thus, the academy has since changed its research objectives. He said, however, that with the foundation we have laid in the past, we are confident that we are capable of developing nuclear weapons. [Text] [Taipei CHUNG YANG JIH PAO in Chinese 19 Jul 79 p 2 OW]

CSO: 5100

INTERNATIONAL AFFAIRS

CSSR-USSR CONSTRUCTION OF KHMELNITSKY POWER STATION NOTED

Ostrava NOVA SVOBODA in Czech 6 Jul 79 p 1 WA

(Article: "First Joint Construction: CSSR Share of Production to be 600 MW")

[Text] The Khmelnitsky nuclear power station will be built in the USSR as the first joint nuclear power construction in the CEMA countries. Taking part in the construction will be CSSR, Hungary, Poland, and the Soviet Union. The CSSR share of production of this power station will be 600 megawatts. Czechoslovak enterprises and organizations will deliver technological equipment, transportation vehicles including Tatra trucks, machine tools and forming machines.

At the same time, these four countries plus GDR will start constructing a high tension power line of 750 kilovolt to the Polish switching station in Rzeszow and the switching station itself. The power line will serve deliveries to the participating countries and will significantly contribute to increased reliability of the unified energy system of CEMA countries and [improve] planned deliveries of electricity from the Soviet Union to CSSR, Hungary, and Poland.

On completion of this power station, the electric energy deliveries from the USSR to the CEMA countries will have doubled. The cross connection of cyclicity and electric power reserves will provide additional intersystem capacity of over 500 megawatts.

CSO: 5100

CZECHOSLOVAKIA

BRIEFS

NEW URANIUM ENRICHMENT METHOD--Synthetic resin, like the ion exchangers from the Bitterfeld Chemical Combine in the GDR, make it possible to regenerate metals from waste waters and also to carry out finishing work on ores with a low metal content. The present finishing methods, such as flotation and roasting [prazení], require a higher ore concentration. In exploiting the increasingly poorer deposits, isolating trace elements or obtaining precious metals, the ion exchangers insure an effective enrichment, for instance of uranium. The ion exchangers can also be used in regenerating electroplating baths. ["(KS"-signed report: "Utilization of Ion Exchangers"] [Text] [Prague RUDE PRAVO in Czech 18 Jul 79 p 4 AU]

CSO: 5100

GERMAN DEMOCRATIC REPUBLIC

BRIEFS

NEW RESEARCH REACTOR--Since Friday, 13 July, a new, modern instruction and research reactor has been in operation at the Zittau Engineering School. The plant has been designed by a collective of young scientists headed by Prof Dr Gerhard Ackermann, with the participation of the Central Institute for Nuclear Research of the GDR Academy of Sciences in Rossendorf and a collective of the Greifswald "Bruno Leuschner" nuclear power plant. "The reactor will be used for basic and advanced training of nuclear power plant engineers under practice-like conditions, and it will moreover serve experimental research. Its nuclear safety is guaranteed in compliance with the international norms valid in the GDR." [East Berlin NEUES DEUTSCHLAND in German 14-15 Jul 79 p 2 AU]

CSO: S100

'AGERPRES' REPORTS ON NUCLEAR ENERGY RESEARCH PROGRESS

Bucharest AGERPRES in English 1750 GMT 1 Aug 79 AU

[Text] Bucharest AGERPRES 1/8/1979--According to the data in the programme of scientific research, technological development and introduction of technical progress over 1981-1990 and the main guidelines until the year 2000, Romanian nuclear energetics and physics will witness a steady and broad thematic diversification, including top domains, able to give economical solutions for the maintenance of the high-rate multilateral development of the country.

Priority will be given to research in the physics of heavy ions, transuranium elements as well as relativistic nuclear physics, for thoroughly analysing nuclear sciences and the elaboration of new solutions in nuclear energetics. Also elaborated will be new techniques of providing and capitalizing nuclear fuel, of manufacturing advanced nuclear reactors, based on fission and fusion. The aforesaid document, submitted for public debate and soon to be endorsed by the Twelfth Congress of the Romanian Communist Party, underlines the necessity of intensifying research in the development of the mineral raw material base for the necessary fuel for nuclear-electric centrals, since the building of highly important units was stipulated.

In the 1981-1990 decade, Romania will have nuclear-electric centrals with a 3,960 mwe installed power, and the number of such centrals will increase, while their power will total 10,000 mwe by the year 2000.

Romanian scientific research and nuclear technological engineering will be grounded, to an ever greater extent, on Romanian conceptions regarding manufacture of equipment, as well as of fuel and heavy water.

Romanian physicists will lay stress on those researches that are meant to contribute to the development of other sciences and economic branches. New radioisotopes, radioactive and radiopharmaceutical sources will be obtained; phenomena of nuclear magnetic resonance and electronic resonance to be applied in the superior capitalization of materials will be studied.

Studied and applied will be solid-state phenomena as well as the physics of surfaces for obtaining materials with special properties. High development will be recorded with research in quantic physics, power lasers and plasma installations used for isotopic separation in chemistry, biology, machine building and mining.

Romanian scientists will also focus their attention on interdisciplinary sciences. Bio-physics, physical electronics, physical metallurgy, etc. will develop.

Researchers will analyse the possibilities of using electron and ion beams, the behavior of matter in extreme conditions of pressure and temperature, processing technologies of metals through electro-erosion and electro-chemistry, elaborated will be high-pressure materials, techniques of using the void, supersounds, high electric and magnetic fields.

Romanian science will contribute to deciphering phenomena in the universe, the investigating the ionosphere, to finding possibilities of preventing seisms.

CSO: 5100

NUCLEAR 'MEMORANDUM OF UNDERSTANDING' SIGNED WITH VENEZUELA

Rio de Janeiro O GLOBO in Portuguese 28 Jul 79 p 20 PY

[By special correspondent Luis Martins da Silva]

[Excerpts] Caracas--Brazil and Venezuela yesterday signed a "memorandum of understanding" through which the two governments commit themselves to establish the basis for "cooperation in scientific and technological activity directed toward the development of practical applications of nuclear energy for peaceful purposes."

The significant part of the memorandum says:

1. The two governments will maintain consultations aimed at establishing the basis for a cooperation in scientific and technological activity directed toward the development of nuclear energy for peaceful purposes, as well as consultations concerning any other area related to peaceful uses of nuclear energy which might be considered of interest to the two nations.
2. The cooperation alluded to above will be implemented in accordance with the needs and priorities of each country, taking into account the availability of human, material, technological and financial resources.
3. The two governments will request their institutions or agencies to conclude agreements to implement scientific and technological cooperation which will go into effect through the exchange of diplomatic notes.
4. The government of the Federative Republic of Brazil and the government of the Republic of Venezuela understand that the points in this memorandum should contribute to improving the methods of negotiation between the two countries.
5. This memorandum will become effective on the date it is signed by the two countries.

CSO: 5100

INTER-AMERICAN AFFAIRS

CHILE COMMENTS ON NUCLEAR AGREEMENT WITH URUGUAY

Montevideo Radio El Espectador Network in Spanish 1500 GMT 20 Jul 79 PY

[Text] The Uruguayan foreign minister is ending his visit to Chile and will leave for Montevideo within an hour. At this moment Adolfo Folle Martinez is going from downtown Santiago toward Pudahuel Airport, where his Chilean counterpart will say goodbye to him. He had a number of meetings with Hernan Cubillos, and they signed a joint declaration and four bilateral agreements. One of the agreements refers to nuclear energy. It states that two Uruguayan experts will go to Santiago to receive special training in everything related to the generation of electricity from nuclear energy. Chile also offered all its experience and equipment in this field in order to prevent a duplication of efforts and investments which the two countries need to direct toward other purposes. All this was reported to Radio El Espectador's special correspondent in Chile by Col Romualdo Pizarro, president of the Chilean Nuclear Energy Commission.

[Begin Pizarro recording] This agreement which has just been signed here [words indistinct] to carry out joint projects of cooperation in various fields of applying nuclear energy to peaceful uses. One of the projects (?deals with) the instruction of personnel who will be trained in a short time in the management and planning of (?possible) nuclear projects in plants for generating electric energy. The basic purpose of this project is to train experts in the various fields as soon as possible. The generation of electricity through nuclear energy involves construction work, the nuclear part itself, quality control and the specific technology of certain types of (?nuclear reactors).
[end recording]

CSO: 5100

INTER-AMERICAN AFFAIRS

BRIEFS

BRAZIL-VENEZUELA NUCLEAR, OIL AGREEMENTS--Caracas, 27 Jul (AFP)--Brazil and Venezuela signed here today a memorandum of understanding on cooperation in the peaceful use of atomic energy. The document was signed during Brazilian Foreign Minister Ramiro Saraiva Guerreiro's visit to Venezuela. The nuclear cooperation agreement states the respect felt by the two nations toward international agreements they have signed, referring to the nonproliferation of atomic weapons as "worthy expressions of their dedication to the maintenance of world peace." The memorandum recalls that the peaceful use of nuclear energy has contributed "many benefits to humanity," and says that close cooperation in this field "is advantageous to the social, economic, scientific and technological development of their peoples." The document stipulates that the two governments will utilize consultation in order to create bases for cooperation in scientific, technological and development activities as well as the practical application of nuclear energy for peaceful purposes and in any other area involving the peaceful use of the atom in which the two countries may be interested. [Excerpt] [Paris AFP in Spanish 1953 GMT 27 Jul 79 PA]

CSO: 5100

ARGENTINA

ATUCHA II COULD BE COMPLETED IN MARCH 1982

Buenos Aires CLARIN in Spanish 22 Jul 79 p 9 PY

[Text] Cordoba--The chairman of the National Atomic Energy Commission [CNEA], Rear Adm Carlos Castro Madero, has asserted that "the Embalse nuclear plant, known as Atucha II, could be finished in March 1982." Castro Madero acknowledged that a public work fundamental to the country, which the Embalse nuclear plant in this province is, will have a 2-year delay because of Canada's attitude of applying pressure so an additional \$130 million will be authorized and paid in view of higher costs. Nevertheless, the official expressed confidence that "there will be a solution to the setback." Castro Madero visited the plant under construction on the banks of the Tercero River Lake, together with the head of the National Atomic Energy Agency of Canada, James Donnelly, and with the chief of the agency's international office, Ross Campbell, who inspected the buildings under construction.

The CNEA chairman categorically denied that Argentina will accept Canada's intention of being paid the additional \$130 million for higher costs. "This figure," Castro Madero said, "has already been accepted by Canada as a loss and it has not been the subject of a claim. Much smaller amounts are being claimed, which are the result of other procedures which need not be explained now." He admitted that the lack of an agreement influenced the kind of terms established initially and asserted: "Yes, it is true. There have been delays in defining responsibilities, but we believe we will finish the plant in March 1982 if we establish an adequate face."

CSO: 5100

ARGENTINA

BRIEFS

ATUCHA PLANT IN OPERATION--The Atucha Nuclear Plant has been back in full operation since this morning, producing its total energy output of 364 megawatts. A spokesman of the National Atomic Energy Commission, CNEA, indicated that the heating process of the reactor--a prior step for the plant to generate electricity--functioned normally, therefore Atucha has been generating electricity at full strength since noon today. [Text] [Buenos Aires Domestic Service in Spanish 2000 GMT 20 Jul 79 PY]

CSO: 5100

BRAZIL

COUNTRY'S FIRST NUCLEAR PLANT WILL BEGIN TESTING NEXT YEAR

Paris AFP in Spanish 2052 GMT 26 Jul 79 PY

[Excerpt] Rio de Janeiro, 26 Jul (AFP)--It was officially announced here today that the first Brazilian nuclear plant will begin testing in the middle of next year. Sergio Mota, technical director of FURNAS, the state owned enterprise in charge of building Brazilian nuclear plants, said that the first charge of enriched uranium will be placed in the U.S.-made Westinghouse reactor, with a power of 626,000 kilowatts, in February 1980. Mota added that the initial tests to check the operation of the reactor of the first Brazilian nuclear plant will be made during May and June 1980. He also said that the testing operation for the tubing began this week and that the testing of the reactor's cooling system will begin next November.

Knowledgeable observers indicated that the timetable for the construction of this plant is more than a year behind schedule, since Linicio Seabra, former FURNAS director, said in February 1978 that the commercial operation of the plant would begin in the middle of 1979, "6 months behind schedule." The first Brazilian nuclear plant, whose construction began in 1972 and which also has two German-built reactors with a power of 1,300,000 kilowatts each, is the Almirante Alvaro Alberto facility, located in Angra dos Reis, state of Rio de Janeiro.

CSO: S100

BRAZIL

COST OF ANGRA 2 NUCLEAR PLANT RISING

Rio de Janeiro JORNAL DO BRASIL in Portuguese 25 Jul 79 p 15 PY

[Text] Licinio Seabra, president of Furnas Electric Company, estimates that the cost of the Angra 2 nuclear plant will increase by \$55 million because of the need to reinforce the foundation piles for the reactor building. The National Nuclear Energy Commission [CNEN] found that the original foundations, whose construction has been completed, were inadequate.

Total investment in this plant is about \$2.3 billion. Of the additional \$55 million, only \$5 million will go to pay for the work of reinforcing the foundations, while \$50 million will pay for financing service necessitated by the 1-year delay in the plant construction timetable.

According to Seabra, the contracts for purchasing equipment from FRG and Brazilian suppliers will have to be renegotiated so that the equipment supply timetable can be adjusted to the construction timetable. However, no estimate of the added renegotiation cost has been made yet because renegotiation talks between Furnas and the suppliers have not been held. The Furnas president said: "It is possible that the FRG suppliers might also be running behind and, if that is the case, not all contracts will need to be renegotiated."

Seabra announced that the pressurizer for the Angra 3 nuclear plant, which had originally been contracted for with FRG suppliers, will now be manufactured by NUCLEP [Nuclebras Heavy Equipment, Inc] in Brazil. He explained that, in view of the delay in the timetables of Angra 2 and Angra 3 (in fact this latter plant is just tentatively programmed for 1987), NUCLEP will have enough time to manufacture that pressurizer here. NUCLEBRAIS, therefore, has asked the KWU [Kraft Werk Union] to transfer the contract for the pressurizer to NUCLEP. The Furnas Electric Company has already accepted this idea, and it is only waiting to receive a proposal from NUCLEP.

CSO: 5100

BRAZIL

BRIEFS

LOAN FOR NUCLEAR PLANTS--The president of the republic has authorized the finance minister to issue the federal government's guarantee for a \$100 million loan to be obtained by the Brazilian Power Companies, Inc, from a consortium of American banks. This loan will be earmarked this year for the Angra dos Reis nuclear plants and for the high power transmission system. [Text] [Brasilia Domestic Service in Portuguese 2200 GMT 30 Jul 79 PY]

CSO: 5100

CUBA

BRIEFS

GARCIA CAPOTE SCORES PRC POLICY--Today at the world congress against atomic and hydrogen bombs meeting in Japan, Cuba condemned the Chinese leadership for encouraging the production of nuclear weapons of mass destruction and for opposing the peaceful use of nuclear energy. The Cuban delegate from the committee for abolishing nuclear weapons which is meeting in Japan recalled that the bombs dropped on Hiroshima and Nagasaki were the first steps in the world arms race. Julio Garcia Capote said that in this age of weapons of massive destruction, humanity, both the developed as well as underdeveloped nations, needs peace. The Cuban Movement for Peace and Sovereignty of Peoples representatives expressed support for holding a world conference on disarmament with the participation of all nations. [Text] [Havana Domestic Service in Spanish 2041 GMT 1 Aug 79 FL]

CSO: 5100

SPAIN TO HELP BUILD NUCLEAR ENERGY CENTER

Guayaquil EL UNIVERSO in Spanish 24 Jul 79 p 2

[Text] Quito--Next year construction will begin on the Ecuadorian Nuclear Energy Center, according to Dr Julio Montes, Spanish authority and director of coordination between the Spanish Nuclear Energy Board [JEN] and the Ecuadorean Atomic Energy Commission since 1977, when an agreement on technical cooperation was reached.

The statements were made by Dr Montes during a visit made to Ecuador to conduct what must be called principal parts of his mission, since his most important area of concentration--next to Argentina, Mexico and Peru--is Ecuador and Chile.

At this moment, said Dr Montes, a project is underway to build the Atomic Energy Center with the participation of Ecuadorean engineers. The idea of the Spanish Nuclear Energy Board is not to build the above-mentioned installation, but rather to train and advise Ecuadorean engineers so that they might build the installations themselves.

At the moment, there are two Ecuadorean engineers who have been actively working on this project since 1978: Dr Angel Castro and Col Gonzalo Avedano, who are carrying on a magnificent effort. Spain is placing all the project's basic technology at Ecuador's disposal so that Ecuador can decide the specific form of its execution.

The Nuclear Energy Center will give Ecuador the necessary infrastructure to supply the country, concretely and securely, with a series of absolutely necessary services.

Imported radioactive isotopes are already being used in our country; X-ray apparatus are used, and it is necessary to insure that their installation is safe; radioactive isotopes are commonly used in agriculture and industry: it is appropriate to make adequate means available to the country to best utilize these isotopes.

In October of this year, Montes added, it will be necessary to have grounds prepared so that construction can begin on the building to house the reactor

and laboratories. This part of the project could be finished in the mid-1980's if it is begun immediately.

Montes finished by saying that these centers were not intended for the generation of electricity by nuclear power. Ecuador has many possibilities for hydroelectric power generation which should still be developed. The intention is only to create a human infrastructure adequate for taking advantage of any nuclear activity, including the possibility of installing a nuclear power center, if technical and economic feasibility studies so indicate.

9077
CSO: 5100

ECUADOR

BRIEFS

URANIUM EXPLORATION--Intense uranium explorations will be carried out in Ecuador in the next few years, according to an Ecuadorean delegate to the Eleventh Meeting of the Interamerican Nuclear Energy Commission, which took place in Santiago, Chile. These activities will be carried out as part of a broad program planned for Latin American countries; a program in which the possibility was raised of giving substantial support to Ecuador's scientific nuclear activities. Prior to the Santiago meeting, a meeting on radioisotopes and radiation was held in Quito in February of this year. The Ecuadorean Commission, in its report, points out that matters of uranium exploration, mining and processing should merit priority attention in Ecuador, as much for their great economic implications--greater than petroleum--as for their capacity to support the robust international political structure of our country. At the same time, the Interamerican Nuclear Energy Commission has stated that it is willing to offer Ecuador all the help it needs to carry out its nuclear development program. The executive director of the organization has stated that Ecuador will receive a particle accelerator, and pointed out that this is the second time that such a piece of scientific equipment has been given to a South American country. It will be sent to the National Polytechnic School. [Excerpts] [Quito EL TIEMPO in Spanish 12 Jul 79 p 1] 9077

CSO: 5100

AL-QADHDAFI REPORTEDLY FINANCING PAKISTAN'S NUCLEAR BOMB

London AL-HAWADITH in Arabic 13 Jul 79 p 13

[Article: "Al-Qadhdhafi Finances of Pakistan's Hydrogen Bomb"]

[Text] Western intelligence agencies, especially those of the Netherlands and Switzerland, have positive evidence now that it is Col Mu'ammar al-Qadhdhafi who is financing the manufacture of Pakistan's hydrogen bomb. The government of Gen Zia-ul-Haq is expected to detonate this bomb before the end of this year.

Pakistan has obtained access to the most modern and the fastest method of manufacturing the bomb by means of one of its scientists 'Abd-al-Kadir Khan, who studied nuclear research at the Delft Institute of Technology in the Netherlands. The Pakistani scientist excelled in his studies, and in 1974 he was employed at the Almelo Institute for Nuclear Research where most of the research activity is considered top secret. West Germany and Britain participated in the institute's research activities. In 1975 'Abd-al-Qadir Khan disappeared, but he has recently reappeared as president of the organization that is building a nuclear reactor in Pakistan.

But no sooner did work on the Pakistani nuclear reactor begin to make some progress, than it was impeded by two basic problems. The first problem was that of the exorbitant costs of these reactors, and the second one dealt with the acquisition of the equipment and the devices that are necessary for operating the reactor. When Pakistan came close to scrapping the entire project, Col al-Qadhdhafi made his offer. To put it briefly, Col al-Qadhdhafi offered Pakistan loans that are necessary for continuing the work and also for providing the devices and the equipment that are required by the project. Libya would acquire this equipment from Western Europe, and especially from Italy.

In return Pakistan would place its nuclear capabilities at the disposal of Libya so that the latter can build its own nuclear reactor and eventually its own bomb.

A story is being told these days in diplomatic circles in the Netherlands that a number of Dutch nuclear scientists had notified security officials

that some Libyans had contacted them and had offered them blank, signed checks on Swiss banks in return for providing them with some raw materials that are necessary for operating the Pakistani nuclear reactor and also for assistance in solving some technological problems that the Pakistani scientists had encountered. Dutch security authorities are guarding the nuclear scientists very closely and they have also placed Libyan diplomats as well as regular visitors in the Netherlands under close surveillance.

It is known that Israel's Prime Minister Menachem Begin had sent an urgent letter to the Prime Minister of the Netherlands Andreas van Agt warning that if Pakistan were to manufacture a nuclear bomb, such a weapon would inevitably become available to Libya.

Some Western sources are saying that during his talks with a PLO delegation recently in Tripoli and also during his recent tour of the Arab countries al-Qadhdhafi had intimated that he had "a surprise that would bring joy to all the Arabs and would increase their strength." He intimated that he would proclaim this surprise during the September festivities.

8592

CSO: 5100

FEDERAL REPUBLIC OF GERMANY

SPD INTERNAL DEBATE ON NUCLEAR POWER DESCRIBED

Duesseldorf HANDELSBLATT in German 23 Jul 79 p 4

[Article by Peter Jansen: "The Skirmishes in the SPD Run Along Old Fronts"]

[Text] Bonn, 21-22 Jul. The various flanks of the Social Democrats have a little more than 4 months' time in which to put together and nail down their positions and arguments on the controversial energy policy questions. It will then be determined during the national party convention from 3 to 7 December at the new Berlin conference center whether the number of nuclear energy opponents has increased decisively since the 1977 Hamburg decision or whether, as party leader Willy Brandt expects, a formula will be found which will not make governing more difficult for Chancellor Helmut Schmidt.

After drawn-out negotiations in front of and behind the scenes the party congress in Hamburg 1½ years ago with a wide majority accepted a proposal, the main point of which is a limited yes to nuclear energy. Limited by the demand that the use of domestic coal must have precedence over construction of nuclear power plants and that energy-saving technologies and the development of alternative energy carriers should be pushed ahead, limited not lastly by the wording that "the option of being able to do without nuclear energy in the future" must be opened up.

The front lines this year in the nuclear energy issue are not much different from the ones in the summer of 1977 during preparations for the Hamburg party congress. The shock waves released even in proponents of nuclear energy by the narrowly avoided reactor catastrophe at Harrisburg have largely subsided. New concerns and troubles are caused by the drastic shortage and price rise of crude oil.

The Baden-Württemberg Social Democrats in Fellbach are the first Land organization to lay out their position for the national convention. The comrades around Erhard Eppler are pleading with a clear majority for a moratorium on construction and permits for nuclear reactors until 1984. Reactors already in operation are not to be turned off unless a safety check results in doubts, and the 4½-year moratorium is to be used in order to develop an energy policy that can function without nuclear energy.

The Social Democratic weekly paper VORWAERTS already prophesied that a similar proposal will have no prospect for a majority at the Berlin convention. At the national convention the powerful union flank of the SPD will not want to be tied to a course which is more restrictive than the Hamburg decision, all the more since the Chancellor and vice party chairman will support it in Berlin.

Up to now only one more land organization is known to have decided, as decisively as the southwestern comrades, against the construction of additional nuclear power plants: the Schleswig-Holstein Social Democrats around Guenter Jansen and Klaus Matthiesen. It was also from their ranks that most of the no votes came in November 1977 against the decision of the party convention at that time.

The Young Socialists have committed themselves even more uncompromisingly to the slogan "Nuclear Power -- No Thanks!" They demand a shutdown of all nuclear facilities, have now called for an action in the form of collecting signatures against nuclear energy and actively support the large demonstration of citizen initiatives which is to take place on 14 October in Bonn. In view of their considerably shrunken influence on the politics of the joint party and the occasionally rude tone -- the nasty expression of "nuclear Chancellor" Schmidt was originated by them -- used by the Young Socialists in pursuing their goals it can scarcely be expected that they will find a great deal of sympathy for their ideas.

Schmidt himself will also in Berlin not appear as an unqualified proponent of extensive expansion of nuclear energy. For one thing, he knows very well that only with difficulty could he find a narrow majority in favor of a pro-nuclear course, for another, the reactor accident at Harrisburg has made him as well more reflective and sceptical. In his government declaration after the world economic summit meeting in Tokyo Schmidt clarified his position: The energy supply must be put on as broad a basis as possible in order to distribute and mix the risks. The individual risks of each energy carrier must be reduced as far as possible. The FRG cannot do without nuclear energy in the next decades.

The debate in Berlin will also revolve around these two major concepts: The demand for a moratorium lasting several years and the effort for limited, additional expansion of nuclear energy tied to certain conditions. Willy Brandt is confident that, just as happened in Hamburg, about 70 percent of the delegates will remain with the present party policy. There will be nuances; the importance of energy saving and the development of alternate sources of energy, above all, will be emphasized even more. Conflicts may be expected to arise over the pros and cons of government measures to save energy, such as Research Minister Volker Hauff recently submitted. In this area it is not certain whether Schmidt, with his dislike of regimentation such as a ban on driving or speed limits, will be able to assert himself at the convention.

11949
CSO: 5100

FEDERAL REPUBLIC OF GERMANY

HAUFF INTERVIEWED ON NUCLEAR POWERPLANT RISK STUDY

Mainz ZDF Television Network in German 1800 GMT 14 Aug 79 DW

[Interview with Dr Volker Hauff, federal minister of research and technology, by reporter Illert in "Today" program on 14 August in Bonn--recorded]

[Text] [Question] The German [nuclear powerplant] risk study arrives at results that are quite similar to those in the corresponding U.S. study. Minister Hauff, doesn't this lead to the conclusion that in contrast to former statements an accident like that in Harrisburg is possible in German nuclear powerplants after all?

[Answer] The Federal Government has always said that such an accident is possible in principle, but that the probability of it happening is only slight. We have still not completed our deliberations; however, in the meantime we have conducted this German study. What we want now is a broad and critical discussion on it. We would also like to have talks with scientists who hold skeptical views regarding nuclear energy so as to be in a position to further improve this study and to be able to arrive at even more definite results in a second phase.

[Question] What actually does the study mean with regard to safety precautions and safety requirements? Must they be enhanced, must already existing installations be reequipped or must there be a reconsideration of issues related to the sites?

[Answer] During the detailed evaluation of the study--which we have had in hand for 14 days now--we will naturally also examine the question of where we can enhance safety installations by levying additional authorization requirements. We are taking this issue very seriously.

[Question] The study itself speaks of psychological aftereffects. What might the study mean regarding the decision for or against nuclear energy that is to be made by your party, the SPD?

[Answer] I think this question is formulated in too simple a way. What matters in this connection is that we rather thoroughly assess what risks one has to reckon with, how much probability there is and what is deemed acceptable. Then such risks must be compared to other risks for civilization so as to finally arrive at a political decision that must orient itself toward the question of how we want to live.

CSO: 5100

FEDERAL REPUBLIC OF GERMANY

NEWSPAPER DISCUSSES NUCLEAR SAFETY REPORT

Frankfurt FRANKFURTER RUNDSCHAU in German 15 Aug 79 p 3 DW

[Article signed Hol: "Games With Figures"]

[Text] Now the German safety report on nuclear powerplants has been issued. Its appearance and style is similar to the "Rasmussen Study" that was issued a few years ago in America, and which described the hazards of a reactor accident where the core melts and radioactivity escapes unhindered as being almost impossible. The same applies to the figures of research Minister Hauff's statistics. In the worst case, which according to statistics could happen once in 1 to 2 billion years of operation, 14,000 people would be killed immediately and 104,000 would die later because of the damage inflicted. Harrisburg demonstrated quite clearly what one should think of such games with figures.

It begins with the simple problem of how one can quantify human errors statistically. Actually it is obvious that you cannot estimate this because sources of error are too different. In addition, the statistics experts tend to base their calculations on the worst possible case. Whatever happens before this limit is simply disregarded. But as a rule these are the accidents that make life difficult for the operators and that create insecurity among the people.

That can be handled in a convincing way only if those who are responsible for the safety of the reactors are not identical with those who want to make the profit. In this country the situation unfortunately is not so clarified that the association for reactor safety that issued the paper can be considered beyond all doubt.

Much more dramatic in this connection are Bonn's efforts, after Albrecht's veto to Gorleben, aimed at distributing nuclear waste material at several interim storage points. If the courts bloc this, which seems in the offing, it would torpedo the entire nuclear waste storage concept.

CSO: 5100

FEDERAL REPUBLIC OF GERMANY

NUCLEAR SAFETY, TECHNOLOGY TRANSFER DISCUSSED

Frankfurt FRANKFURTER ALLGEMEINE in German 15 Aug 79 p 1 DW

[Article signed R. H.: "Good Will"]

[Text] Although it is said that nuclear technology is about half dead, and even American producers are giving up this field, progress is taking its course. In line with the principles of the Federal Republic to avoid direct bilateral state trade, in Mexico Graf Lambsdorff indicated the possibility of private business getting together: The Mexicans would supply oil to German firms, while other German firms would supply the Mexicans with nuclear technology. There is good reason why this will not take place in a hurry: prospects for nuclear export deals are presently blurred by impending decisions regarding nonproliferation policy.

In the meantime a monstrous congress in Berlin has demonstrated good will with regard to safety. Harrisburg and similar things are still involved. Experts take into consideration that the public must be calmed down. In nonofficial international congresses of experts one tends to forget Harrisburg and handle routine matters: Every kind of progress has its accidents. Since man is lighthearted by nature, admonitions for circumspection are called for, and the engineers and scientists in Berlin must fear that their good will to make their activities more open and to demonstrate the risks involved can be misunderstood by the fearful and misused by the demagogues.

With much publicity research Minister Hauff tries to get the streams of opinion under control. The technicians and scientists fail to bring influence to bear on the public with their insight into their technology. Congress President Jaeger appealed to the politicians "to take over their part of the job." That is a ticklish problem. The federal chancellor knows from his fight against inflation about the problem of "How do I tell this to my people?" He successfully played the part of a public teacher to the nation. Achieving the same in the much more difficult to understand field of nuclear energy planning would go beyond his strength which would lead to failure. The politics of the FRG nuclear situation suffer from the fact that the leadership tasks can hardly be mastered. All those who are tempted to fish out something demagogical ought to respect this fact.

CSO: 5100

EUROPEAN VIEW ON NUCLEAR COOPERATION VOICED

Paris CEA NOTES D'INFORMATION in French May 79 pp 14-19

[Paper by Georges Vendryes, director of industrial nuclear applications of the Atomic Energy Commission, presented on 7 May 1979, at the European Nuclear Conference--FORATOM VII, in Hamburg (6-9 May 1979): "A European Point of View on International Cooperation"]

[Text] As its title indicates, this paper falls within the framework of a European perspective; however, I should like to make it clear at the very outset that its only purpose is to express the point of view of a European. The ideas it presents commit no one but its author and, a fortiori, does not in any way pretend to reflect the official views of the various governments involved. Let me add that, in this account, I will use the term "Europe" in the sense of: "all the countries of Western Europe in the economic community."

In the energy sector, the various countries of Europe find themselves in a very similar if not identical situation, characterized by high consumption, limited natural resources of their own and, because of this fact, a great degree of dependence vis-a-vis the outside world.

Obviously, this picture merits qualification: within the European framework, there are significant departures from the rule. However, compared to the very diversified situations of the other countries of the world, the various nations of the European geographic region have common traits in the energy sector which we can summarize schematically as follows:

--A comfortable standard of living, which is expressed in a gross national product on the order of \$5,000 per capita annually, while numerous countries, in which an increasing share of the world's population is accumulating, unfortunately have one-tenth that standard of living;

--Large energy consumption, on the order of an average of 3 tep (tons of equivalent oil) per person annually—the corresponding figure for the United States is on the order of 8 tep; Europe represents 20 percent of the world's consumption of energy, while it has only 10 percent of the world's population;

--Limited resources of their own in fossil fuels: around 5 percent of the world's exploitable resources; certainly in this regard there are notable differences among European countries, however, neither German lignite, English coal, Dutch natural gas nor North Sea oil over the long-term appear capable of changing the situation in a decisive way.

This disproportion between needs and resources results, for all of Europe, in a large degree of dependence vis-a-vis energy imports: in excess of 50 percent, and constantly on the increase since the war, for most of the countries. In this regard, the case of France is significant since its degree of dependence, which was 36 percent in 1955, totaled 75 percent in 1975. If I cite French figures it is because they are among the least satisfactory of the European nations and because they are a good example of what its neighbors must attempt to avoid in the future. An imbalance of this nature, if it persists, is a disturbing factor of political vulnerability and economic instability against which the European nations must react, by vigorous economy efforts, exploitation of all the available forms of energy on their soil, and very broad recourse to nuclear energy.

Thus far, Europe through patient effort has been able to achieve maturity in all the key sectors of nuclear technology and industry, by accumulating a package of experiences, competencies, means and accomplishments, second to none in the world. It is also a common characteristic of most of the countries of Europe to already be endowed with sizable amounts of electro-nuclear equipment. Some of them are now very committed to this alternative. That is the case with Belgium, Switzerland and Sweden in which countries more than 20 percent of the electricity being produced at present is nuclear in origin. Others, such as France, have very important nuclear power plant programs underway which permit them to greatly exceed this percentage.

As of 1 January 1979, the installed nuclear power generation capability of Europe, on the order of 35,000 MWe, represented one-third of the world total. In 1985, it should exceed 100,000 MWe and maintain its one-third share of the world's installed nuclear power generation capability, if construction projects in progress or approved continue at the scheduled rate.

I know very well that during the last few years numerous nuclear programs have experienced serious slowdowns and that some of them, notably in Europe, may now have the appearance of having halted. I cannot believe that this involves anything other than a temporary pause. Such a situation could not be prolonged any length of time without causing serious problems affecting employment, the standard of living, and, finally, the kind of society to which the peoples of Europe, in the very great majority, are deeply attached.

Of course, it should be noted that European nuclear activity, in large part, continues to be carried out within the national framework where concurrence is predominant. Such is the case, for example, in the sector of light water cooled reactors in which the few large European industrial groups have a quasi-monopoly in the national territory and confront one another on the world markets. Such is also the case in the uranium enrichment sector in which it is known that two multinational groups, EURODIF [European Diffusion Agency] and URENCO [expansion unknown], are carrying out concurrent developments, the former by gaseous diffusion and the latter by ultra-centrifugation.

I am aware of the difficulties which up to now have been an obstacle to the definition of a common energy policy in the various European countries. And yet, in the face of the impending crises, all of them find themselves in a fragile situation. Because of the fact of the multiple bonds which unite them, it is illusory to think that any one of these countries could by itself overcome the difficulties which are imminent in the energy supply sector, while allowing the others to bear all the consequences. They are unified by the shape of things. I hope and believe that awareness of this situation will lead them to a rapprochement in a sector which is vital to them, energy, and nuclear energy in particular. In the latter sector, I see certain signs of this necessary evolution manifesting themselves.

We know that five European countries (France, the Federal Republic of Germany, Italy, Belgium and the Netherlands) have been collaborating for 2 years in the fast neutron breeder [surregénérateur] reactor process and are attempting to rationalize and optimize their programs and orient themselves in the direction of common models of reactors. I hope that ties can be established among this group of countries and Great Britain which, in a sector where its technical contributions have been so important, could benefit from the most recent progress made on the continent.

The high-temperature reactor process is a sector in which Europe on several occasions has attempted an integration of its efforts and has played a leading role at the world level. I will also mention operation DRAGON and express my regrets that it did not pass into the industrial sector. After having moved into the United States' court several years ago, the ball has now come back to the European side of the net, where the Federal Republic of Germany has imposed itself at the head of the line, thanks to the scope, quality and continuity of its programs. Other countries, such as Switzerland, have joined Germany. France, for its part, is exploring certain specific aspects of this process with a long term perspective, notably within the framework of an association between the German PNP [expansion unknown] and the group set up in France to study the nuclear gasification of coal.

In the reprocessing of radioactive fuels sector, an Anglo-Franco-German group, United Reprocessors GmbH, has existed since 1971, within which useful dialogs are taking place. The COGEMA [Nucelar Materials General Company] in France and the BNFL [expansion unknown] in Great Britain have large-scale industrial experience deriving from their Hague and Windscale installations.

In the waste packaging and storage sector, there seems to be nothing now in the way of fruitful European collaboration; in particular I should like to point out that French technology perfected in the Marcoule Vitrification Shop is immediately available to our other partners.

Of course, these have been only limited examples; and the effective implementation of the collaborations initiated inside Europe will still require long and patient efforts. For my part, I am convinced that with time they will multiply, since the needs exist, as do the means for satisfying them.

In any event that is the point which I such like to stress in concluding the first part of my paper, before broadening its scope to the international scene as a whole.

Many studies have been published about the world's energy future. The figures vary according to the authors; however, all of them bring out the fact that there is a common trend toward an inescapable increase in consumption, at a rate which will nearly double in 20 to 25 years. Of course the needs of the developed countries should increase in a more and more moderate way; however, this relative saturation should largely be offset by the gigantic and necessary catching up process in the growth of the developing countries.

Among the most recently published data, for the purposes of illustration, we should like to call attention to the interesting report put out by the "Preservation Commission" of the World Energy Conference, which at the beginning of 1979 completed the work presented at the Istanbul Conference in September 1977. According to this report, the world's energy demand should reach 7 billion tep (tons of equivalent oil) in 1980, rise to 13 billion in 2000 and exceed 23 billion in 2020.

The authors emphasize, "What we have here is still a matter of a minimal estimation, which shows an overall reduction on the order of a good third of energy consumption with respect to what it would be if it continued to develop at the same rate as the world gross product."

To meet this demand, all possible energy sources will have to be mobilized, including nuclear energy whose contribution in 2020 is estimated at 7 billion tep, which represents 30 percent of the consumption of that period and is equal to the total primary energy consumed in the world in 1980.

As a matter of fact, the balance between world energy supply and demand is and will continue to be precarious, no matter what hypotheses or scenarios are advanced. In this sector more than in any other, the time constraints are considerable. Sizable delays are necessary both for the development of new means of production and for any other corrective action. The adoption of vigorous long-term programs is an imperative necessity, and the needed decisions should be made quickly, if we are to avoid a shortage which would plunge the world into disorder and inflation and compromise the economic development of less-favored countries.

Although all countries of the world are concerned by this evolution, they are so in a very unequal way. Few of them can hope to resolve their energy problem on purely national bases; however, that is the fate of the developing nations lacking in oil and raw materials, which is the most bothersome question. In the event of a serious crisis at the world level, the risk of these nations becoming more impoverished is greater. Apart from the fact that, at the philosophical level, it is unacceptable to allow an important part of mankind to thus sink into misery, such a situation would accentuate instabilities and tensions, which are the root of all conflicts. If there is a sector in which the solidarity of nations should be manifested, it is indeed in the sector which involves their energy supplies, and most particularly the utilization of nuclear energy whose contribution will be increasingly more necessary to ensure the world energy balance.

Added to this profound reason, there are several other considerations to justify the development of nuclear energy within the framework of international cooperation:

--Nuclear technologies are difficult and complex and their development requires long and costly efforts; of course a certain amount of emulation among teams or nations is necessary and enriching; however, by going too far down this path, we are running the risk of great waste; it would be particularly absurd for developing countries to squander their limited resources on the reinvention of what others have done before them. Reason and effectiveness dictate an international development of technology transfers, technical assistance and manpower training activities;

--However, no matter how desirable these nuclear exchanges between countries may seem, they reached their limitations some time ago, as in certain cases they may favor a proliferation of nuclear weapons which the international community is seeking to avoid: we know about the recent development of these problems, the discussions and controversies which they have provoked and which contribute to giving nuclear questions a supplementary international dimension;

--Finally, public opinion and the press have been sensitized to the extreme, in all countries, to everything involving nuclear energy, as demonstrated by the recent accident at the U.S. Three Mile Island nuclear power-plant, to every event involving a nuclear installation--even those without impact upon the public--a fact that is immediately the No 1 story in all newspapers, with repercussions throughout the world. It is, therefore, important and necessary for a permanent dialog to be established between organizations responsible for preparing and applying nuclear safety and protection regulations.

For the reasons set forth above, the countries of Europe are now in the best position to demonstrate this international nuclear solidarity, by active cooperation with other countries.

During the third quarter of the 20th Century, the United States of America played a major role in the promotion of nuclear technologies and their industrial development in the world. In these two sectors, Europe was for a long time dependent upon the United States. Today, it is in a position to be self-sufficient and, in certain sectors, is even in the process of taking a technological lead. This situation is doubtless attributable to the fact that Europe, because of its particular problems, has an even more pressing need than the United States to use nuclear energy resources in depth.

Be that as it may, what is involved there is a significant evolution which in the future should cause Europe to play a more important role than in the past in the world nuclear sector.

For some time to come, the two principal centers of development of nuclear energy will still be Europe and the United States, which makes it imperative to maintain a regular interchange between the two sides of the Atlantic. However, this will increasingly involve a dialog between partners on an equal footing.

As regards relations with the other industrialized countries, I will limit myself to a few brief remarks, for lack of time.

First, I will mention relations with Japan, whose energy supply problems are at least as serious as those of Europe. It seems obvious to me that Japan cannot, any more than we, avoid very great use of nuclear energy; and I am sure that it will do so with great concern for preserving its national independence, by keeping control over the key resources necessary for the success of its nuclear program. This quite legitimate concern does not in any way prevent the existence of mutual interest relations with Europe. The similarity of the situations and needs should, in my opinion, make these relations increasingly more numerous and closer in the future.

I cannot refrain from recalling to what point the relations between Europe and the West and Europe and the East in the nuclear sector have up to now been limited and to deplore this state of affairs. The development of relations is highly desirable, for it is quite clear that their importance goes far beyond interest in technological exchanges alone, however useful they may be.

I will say a few words about Australia to illustrate by this example the case of a highly industrialized country which has very large uranium resources without on the other hand having immediate needs for nuclear energy. Even before Australia envisions the launching of a nuclear powerplant program, it may be interested in calling upon European technology to enrich its uranium in its own territory and thus obtain for itself the maximum value added before export. Thus the conditions for collaboration in which each party finds his advantage come together.

Most particularly I should like to emphasize the case of the developing countries whose needs are immense and whose problems are most difficult. It is in these countries that nuclear energy should experience its greatest long-term expansion, that is to say, beyond the year 2000.

A goodly number of these countries are already preparing themselves for this eventuality with great clairvoyance, and without hiding from themselves the difficulties they will have to face. Nuclear technologies are complex; they are designed for the production of complex systems; they call for a diversified industrial infrastructure; and they involve high investment costs. These various obstacles explain the disappointments and disillusionments which certain countries may have experienced in the past due to premature introduction of nuclear equipment in a poorly prepared context. To overcome these disappointments and disillusionments, it will be necessary to have a rigorously planned strategy, spread out over a long period. Doubtless the most important element is the training of competent men, of whom these countries will have an absolute need if they wish to avoid being entirely dependent upon the already industrialized countries. They will need cadres and technicians skilled enough to judge the worth of the technologies offered, assume the responsibilities attached to the issuance of authorizations for construction and operation, assure the operation of the installations and then see to it that local industry is capable of conceiving and manufacturing an increasing part of the needed equipment. For numerous countries, this is a question of a very long-term undertaking. Whether it involves the preparation of development plans, the training of cadres, establishment of research units or centers to aid in the constitution and training of qualified staffs, there are many sectors in which European assistance can be particularly useful to countries taking up nuclear energy for the first time. This assistance can be specialized in such and such sector; however, it can also be envisioned in a more comprehensive way and progressively cover all aspects of the civilian atom.

This international cooperation, whose need has just been recognized and emphasized in the nuclear sector cannot take place in anarchy: it must respond to a minimum number of rules of the game, which are public, stable and recognized by all.

While waiting for a broad international consensus to be formed in this sector, each country has drawn up its own rules of conduct. In what follows, I can only make reference to my country's policy, by recalling the essential principles and by illustrating them with examples.

For its part, France has clearly made known its attitude for several years*: it has firmly decided to fight against the uncontrolled proliferation of nuclear weapons, but in a realistic way, while respecting the sovereignties of states and responding to their legitimate desire in the energy supplies sector.

During this period, France has continued to take its inspiration from these principles, to which its European partners seem to me to also subscribe in essence.

--Access to the development of peaceful applications of nuclear energy in the world.

For a great number of nations, nuclear technologies represent a competitive source of energy necessary for their development. France is, therefore, ready to contribute to the implementation of these peaceful applications; it will assure the security of supplies of fuels for electro-nuclear powerplants supplied by it and will respond to the legitimate needs for acquisition of the technology within the framework of a timetable which is in consonance with the real needs of each nation.

This last point merits a comment and can be illustrated with the help of fast-neutron reactors: France, like its European partners, feels that it has the duty without delay to prepare for the passage from the present processes to that of fast-breeder reactor powerplants which are the only ones that can extract from uranium all the energy it contains and are the only ones which will permit economizing on limited resources. However, the building of fast-breeder reactors supposes the existence of thermal neutron reactors capable of supplying the plutonium needed to get them started: their development, therefore, only makes sense in countries which have been operating a significant assemblage of first-generation powerplants for a certain number of years.

*Notably by establishing a "Foreign Nuclear Policy Council" on 1 September 1976 whose guidelines were publicly set forth by a government communique dated 11 October 1976.

--A search for dialog and balance among nations.

Almost all the nations involved in the nuclear sector would doubtless subscribe to a nonproliferation policy if they were certain of its present and future respect for their concerns and interests. To agree to restrictions involving installations and technologies, sovereign countries demand that such restrictions be determined by themselves, without agreeing to having them imposed upon themselves.

Therefore, in place of the tensions brought on in the world by the present debates and controversies, France wishes to contribute to the substitution of a climate of confidence and stability. To this end, France proposes:

--A dialog between countries which supply nuclear equipment, material or technologies, to prevent encouragement of nuclear weapons proliferation through commercial competition;

--A dialog between supplying countries and client countries, designed to secure the adherence of the latter to an international system of assurance and reciprocal guarantees, with respect for national sovereignties.

--The perfecting of technical and political measures permitting the reconciliation of the various concerns.

Can we overcome this apparent contradiction which consists in favoring the diffusion of the peaceful atom while at the same time preventing the proliferation of nuclear weapons? The problem is delicate, and its solution can only be based upon a combination of rules and precautions of a technological, industrial and political nature.

Technological measures, first. The risks of proliferation would certainly be appreciably reduced if civilian nuclear energy would resort to techniques or technologies different from those used for military objectives.

Such is already partially the case, I might add, since the materials used in the manufacture of weapons (greatly enriched uranium and metallic plutonium) are not used in this form in electrical applications. Most European countries have based their electro-nuclear programs on high-capacity powerplants using light water and slightly enriched uranium, whose use can be generalized throughout the world, posing a minimum of problems from the non-proliferation point of view. The same is true of light water plants with lesser capacities whether used for the production of electricity, or other industrial applications, which seem well suited to the needs of developing countries. The technology of this gamut of reactors was particularly developed in Europe: as an example, I will mention reactors of the Thermos type, developed in France for urban heating and easily adaptable to sea water desalination installations.

Without doubt a supplementary effort could be made to prevent insofar as possible the utilization in the civilian sector of technologies which could be employed or easily converted into military usages: France recently made concrete proposals in the sector of enrichment and nuclear fuels which I will review briefly.

At the International Conference in Salzburg in May 1977, France announced that it had developed a chemical process for the enrichment of uranium, permitting the construction of plants with relatively modest capacities which are economically profitable but technically unsuited for any production of highly enriched uranium. In collaboration with other states, France proposes to build a pilot industrial plant using this process. It is important for all countries interested in eventual participation to join this project without delay. This project is an example of nonproliferative technology.

In the sector of test and research reactors, we know that the efforts now being exerted in the world to reduce--with an obvious concern for nonproliferation--the rate of enrichment, generally very high, of the uranium used in the cores of its reactors; within the framework of the IAEA [International Atomic Energy Agency], France made a recent contribution to this work by offering its services to interested countries for the slightly enriched fuel known as "Caramel," which it had developed for this kind of installations.

Solutions of an industrial kind could be added to these different measures of a technical nature, such as the construction, on proper sites and in forms offering the best guarantees, of international plants for the enrichment of uranium and reprocessing of radioactive fuels: these installations would provide services for the producers of electricity of the whole world, under economic and political conditions which the client countries judge to be at least equal to those which they could obtain by themselves developing these technologies. Above all, most countries are seeking security of supplies: if they are convinced they can count upon international installations, they will avoid national solutions which, moreover, are generally most costly. Nonproliferation as well as general economy would be served by such an arrangement.

In that area, too, Europe has shown the way, as it is in Europe and on the basis of European technologies that several years ago two multinational enterprises were established in the uranium enrichment sector:

--the EURODIF, whose plant in Tricastin (France), several weeks ago started up its first isotopic separation by gaseous diffusion units. We know that in 1982 this installation is to reach its full capacity of 10.8 million UTS [expansion unknown] and that it will then represent 30 percent of the total enrichment capacity of the Western world.

--The URENCO consortium, which has in operation, under construction or in the project stage three enrichment plants based on the centrifugation process. URENCO's objective is to have a capacity of 2 million UTS at the beginning of the 1980's.

In both cases, the solutions adopted have shown that the launching of such operations was possible and feasible under good industrial conditions, while making use of international cooperation, rich teaching experiences, which show the way for other multinational companies, corresponding to the optimal economic dimension of the processes, and at the same time assuring guarantees for supplies and the peaceful use of the materials produced.

These technological and industrial measures could finally be complemented by regulations of a political character. The most important of these involves the strengthening of the system for the control of the peaceful use of nuclear activities. The International Atomic Energy Agency has up to now played a decisive role in this sector: this role should be strengthened and the corresponding control measures increased.

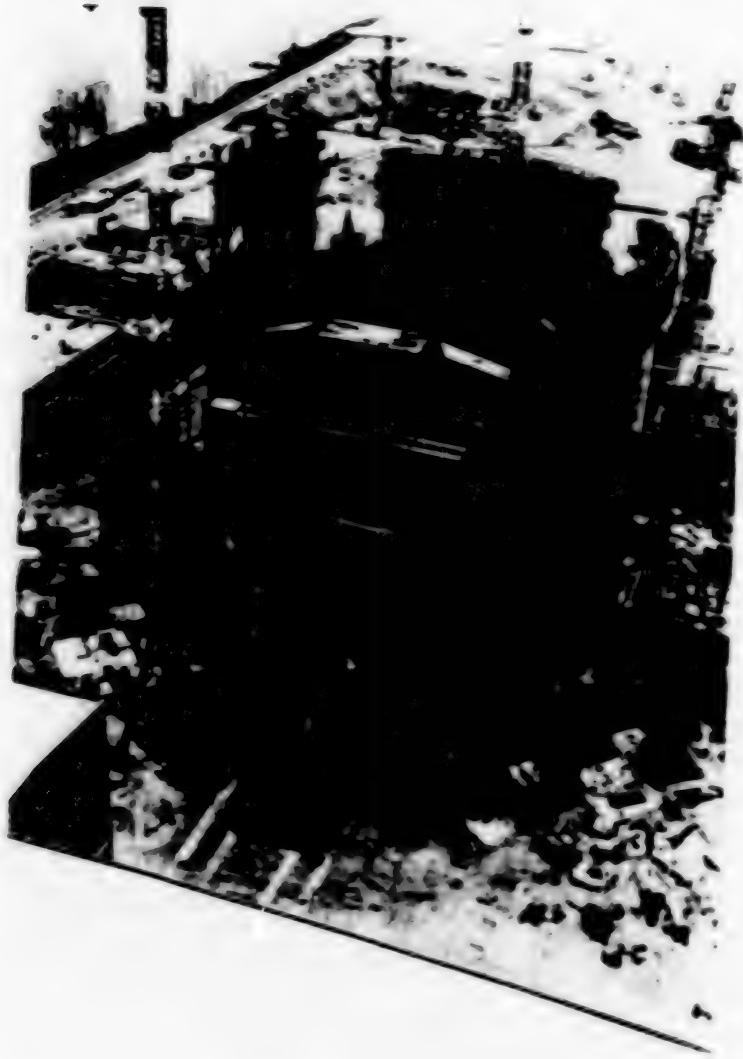
In my opinion, such are the principles which should inspire international nuclear cooperation. It goes without saying that once this policy is defined and accepted at the level of governments, one essential step will still have to be taken: that of its implementation, at the level of industrial realities.

This will be accomplished by stressing:

--A large international consensus excluding any discrimination in principle.

--Cooperation between states, judiciously associating technological progress and good industrial and commercial organization, so that it will be possible to assure the necessary development of civilian nuclear energy, while at the same time minimizing the risk of weapons proliferation.

Europe, which has reached its full maturity in all the key sectors of nuclear energy and which has shown the way by concrete examples of multi-national achievements, is firmly resolved to cooperate and work to this end.



Chantier Super-Phénix (Avril 1979)

8143
CSO: 5100

NETHERLANDS

CPN ANNOUNCES NEW 'STOP THE NEUTRON BOMB' CAMPAIGN

International Activities Planned

Amsterdam DE WAARHEID in Dutch €3 Jun 79 p 1

[Article: "International Relay Race Against the Neutron Bomb; Coalition Takes Initiative For New Action"]

[Text] The Coalition to Stop the Neutron Bomb - Stop the Nuclear Arms Race has issued a call for an International Relay Race "Stop the Neutron Bomb - Stop the weapons of mass destruction, toward further detente and disarmament."

The International Relay Race is to start at the end of August in Amsterdam, and then go on from country to country, and end during the United Nations Disarmament Week at the end of October in New York with the handing over of the symbols and declarations from the various Helsinki countries to the United Nations.

"The goal of this initiative is to strengthen the movement for a follow up to SALT II and to pursue the struggle against the neutron bomb, against the weapons of mass destruction," according to a communique issued by the coalition.

SALT II Positive Phenomenon

In this communique, the coalition stated that it considers it a matter of great significance that a new agreement has been reached between the United States and the Soviet Union with regard to the limitation of the strategic nuclear arms race. It greeted the conclusion of SALT II as a positive phenomenon which must not be impaired by the campaign waged by Senator Jackson and others in the United States.

"The agreement should not be approached with skepticism, but the climate it created should be used for effective action in favor of peace and detente," noted the communique. SALT II is a new political fact which shows that the worldwide movement against weapons of mass destruction can achieve results. The limitation of strategic nuclear arms is a step toward a

turning point in nuclear arms. It will have to be followed by further steps aimed at stopping the development of new nuclear weapons, with a view to nuclear disarmament.

Specifically, it would be timely to prevent the development of new nuclear weapons to be stationed and used in Europe. The development of new weapons of mass destruction, such as the neutron bomb, would endanger the detente in Europe and open a new round in the arms race.

The promotion of the process of detente, of which the signing of SALT II is a sign, requires the waiving of any plan for the production or stationing of the neutron bomb and of new short and long range missiles.

"In this context, the Coalition Stop the Neutron Bomb - Stop the Nuclear Arms Race has taken the initiative for this new concerted action in the fall in those countries of Europe and North America which have endorsed the Final Act of the Helsinki Conference concerning Security and Cooperation in Europe," stated the communique.

Soviet Involvement Criticized

Rotterdam NRC HANDELSBLAD in Dutch 22 Jun 79 p 7

[Article by J.L. Heldring: "A Well Earned Decoration"]

[Text] One of the principles of international cooperation which the Soviet Union harps on most is that of non-interference in each others domestic affairs. It rejects not only intervention -- which is usually understood to mean violent intervention -- but also other forms of interference with another's affairs, such as the innocent inquiring about the situation of human rights in a given country.

Knowing this, it is funny to see that the Soviet Union, at the end of the visit by Prime Minister Desai to Moscow, signed a joint statement which states, among other things, that both countries are opposed to any interference by external forces in the domestic affairs of Afghanistan.

And this while there are thousands of Soviet soldiers in Afghanistan who are not just simply there, but who are also fighting the insurgents against the communist regime. Thus, Russian pilots are punishing the population of areas where there are rebels, with bombardments.

However, one should not think that, in its own eyes, the Soviet Union thus violates the principle of non-interference. They never get tired of stating that the principles which must govern the relations between socialist and non-socialist countries do not apply to the relations among socialist states any more than to the support which the Soviet Union provides to the "liberation movements" in the Third World.

In other words, its actions in Czechoslovakia, Africa and Afghanistan are not contrary to the principle of non-interference. Here it must yield to higher principles. (The fact that in 1975, in the Final Act of Helsinki, it acknowledged that the principle of non-interference also applies to relations between socialist states must be considered as a temporary aberration, which can be attributed to its fervent wish to see the establishment of a status quo in Europe -- otherwise no reason for the West not to hold it to this acknowledgement).

But the fact that it does not take the principle of non-interference too literally in the context of relations between itself and non-socialist countries either, was demonstrated recently by a curious incident, which should particularly concern the Netherlands. What happened?

Shortly after his departure from the Netherlands, the former ambassador, Mr Romanov, received a high decoration with the mention that he earned it because of his contribution to the awakening of the Dutch people in its opposition to the neutron bomb. That the Soviet Union did not wish at all to keep this reason a secret is proven by the fact that the Soviet press openly mentioned it. (As a matter of fact, the outside world would not have known about it otherwise).

Well now, this is a pretty good sample of interference in another's affairs. Or is the Netherlands more or less considered to be a country where the people are involved in a liberation struggle and where thus the principle of non-interference does not apply? However this may be, it would be difficult for the Dutch government to take something like this lying down.

The government is helped in this by the fact that the Soviet Union itself, according to the statement in its press, openly acknowledges this interference. If it had not done this, the Dutch government would not have much to stand on. Of course, countries constantly interfere in each other's affairs, but they seldom admit it so blatantly as the Soviet Union has done in this case.

Is this candor stupidity or brutality, a sign that the Soviet Union considers itself already powerful enough in relation to Western Europe no longer to have to follow the rules of hide and seek, which the diplomatic dealings between more powerful and less powerful countries really are? As in Finland where it clearly interferes in domestic affairs via its embassy and its press.

For those in the Netherlands who participated in good faith in the neutron bomb action -- about those who did not participate in good faith we are not going to talk -- this Russian candor should be like a cold shower. /Should/ [printed in italics] -- because it is very questionable whether this /will/ [printed in italics] be the case. People's capacity to deceive, if not others, at least themselves is indeed limitless.

There is no need to doubt the purity of their motives, but now they are written down at least as naive hangers-on of the Russian power politics. Because nobody would want to claim that the Russian motives against the neutron bomb are the same as theirs. The Russians only fear it -- and rightly so -- as the only weapon capable of neutralizing their superior power in tanks.

It would be interesting to find out what exactly was Ambassador Romanov's contribution to the awakening of the Dutch people with regard to the neutron bomb. Was it a financial one? Did it consist of giving advice with regard to propaganda and organization? Because it must be said that the anti-neutron bomb action was in any case an excellent example of effective organization and propaganda.

Next we can expect a similar action against the modernization of tactical nuclear weapons, whereby action will be particularly directed against the location of medium range missiles on Dutch soil. The credibility of such an action would in any case be furthered if the opponents stay far away from any -- direct or indirect -- contact with the embassy of the Soviet Union.

Following the public decoration of Ambassador Romanov, they will have trouble enough clearing themselves of the odium of allowing themselves to be used in a game which is being played for quite different motives and according to quite different rules than they themselves believe.

Soviets Refute Accusation

Rotterdam NRC HANDELSBLAD in Dutch 4 Jul 79 p 7

[Letter from Vladimir Moletsyanov, correspondent for NOVOSTI: "Neutron Bomb"]

[Text] On 22 June last, my Dutch colleague Heldring published an article in the NRC HANDELSBLAD, entitled "A Well Earned Decoration." In this long article, the Soviet Union is being accused of interference in the domestic affairs of the Netherlands. This is a serious accusation, which must be substantiated by proof.

Heldring thereby reasoned as follows: former Russian Ambassador Romanov incited the Dutch people to oppose the neutron bomb. The merits of the ambassador did not remain unnoticed and upon his return to Moscow he received a high decoration. This decoration was reported in Russian newspapers, which means that the Soviet Union publicly admits its interference in Dutch domestic affairs.

Allow me to make it clear to the numerous readers of this newspaper that this is a gross misrepresentation of the facts. The Soviet government did not give Ambassador Romanov any decoration upon his return from the Netherlands. I would like to ask Heldring to show me the non-existing newspaper which, according to him, reported this decoration.

I read the article to Alexander Romanov. The ambassador was surprised and called it "a gross lie, from beginning to end." The ambassador was also surprised that the article was written by a reporter whom he had always considered to be a "serious observer."

These are the facts. But I have the feeling that Heldring knowingly and deliberately falsified them. As he himself stated in his article: "People's capacity to deceive, if not others, at least themselves is indeed limitless."

Heldring wanted to put new life into the old myth of the Russian threat and did not hesitate thereby to invent a lie about interference of the Soviet Union in Dutch affairs. In my opinion, such an action is an insult to the national feelings of the 1.5 million signatories of the "Stop the Neutron Bomb" action, and calls into question the integrity of the many Dutchmen in public, political and cultural life who started the campaign against this barbaric weapon. It is noteworthy that Heldring is doing this at a time when opposition to neutron weapons is increasing all over the world.
Sincerely, Vladimir Moletsyanov, correspondent for NOVOSTI, Moscow.

Heldring Cites Source

Rotterdam NRC HANDELSBLAD in Dutch 4 Jul 79 p 7

[Letter from J.L. Heldring: "Postscript"]

[Text] I borrowed the story of former Ambassador Romanov's decoration, which is disputed by NOVOSTI, from the newsletter NOUVELLES ATLANTIQUES (a publication of the Brussels Agence Europe) of 8 June last. But as I did not want to depend solely on this source -- indeed a usually reliable one -- I requested a confirmation of this report from the official Dutch side before writing my article. I was given this confirmation with reference to the "most reliable source possible," which was not however identified. We are now awaiting the answer of Minister Van der Klaauw to the questions raised by House members Verkerk-Terpstra and Ploeg with reference to my article.

8463
CSO: 5100

END

END OF

FICHE

DATE FILMED

6 SEP 79

wB